the beta2-adrenoceptor gene have been shown to have functional consequences as a result of receptor desensitization associated with certain genetic variants. Accordingly, we hypothesized that the common Arg16/Gln27 beta2-adrenoceptor polymorphism would affect pulmonary function in CHF. METHODS. 54 consecutive, stable CHF patients were genotyped at codon 16 and 27 of the beta2-adrenoceptor gene. Pulmonary function tests were performed at rest in patients with the two most common combined homozygous polymorphisms: Arg16Arg/Gln27Gln (n=8) and Gly16Gly/Glu27Glu (n=16). RESULTS. Left ventricular ejection fraction, cardiac index, diastolic and systolic diameters were similar in the two groups. However, patients in the Arg16Arg/Gln27Gln group were found to have significantly lower percent predicted vital capacity (78±6 vs. 94±4, p=0.04), diffusion capacity (82±7 vs. 95±3, p=0.047) and alveolar volume (84±6 vs. 99±4, p=0.035), in the presence of normal flow rates. CONCLUSIONS. Arg16 and Gln27 homozygosity of the beta2-adrenoceptor gene is associated with restrictive pulmonary function at rest in patients with stable, treated CHF. Although the exact mechanisms of this phenomenon are unknown, it may be related to the differential effects of beta2-adrenoceptor polymorphisms on beta2-adrenoceptor-mediated transalveolar fluid clearance.

1206-76 Correlates of Quality of Life in Advanced Heart Failure: Insights From the Acorn Trial

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Background: Quality of life (QoL) measurement in heart failure (HF) is an important endpoint in randomized device trials. Patient characteristics may differ from drug studies (e.g. younger age) due to higher perceived risks of surgery. The Acorn CorCap, a surgically implanted cardiac support device intended to reduce wall stress and induce reverse remodeling, is under evaluation in NYHA II- early IV HF. Two strata - severe mitral regurgitation (MR) that requires valve repair/replacement (MVR) and cardiomyopathy without need for concomitant surgery - also permits assessment of the effect of MR on QoL. Methods: Baseline QoL (MLHFQ; SF-36), 6-minute walk distance (6MWD), end-diastolic dimension, ejection fraction, peak VO2 and comorbidities (diabetes, etc) were collected (N=108). Correlation coefficients and multivariable predictors of QoL scores were determined. Results: The score on MLHFQ correlated inversely with 6MWD (-0.33, p<0.001), age (-0.30, p<0.05) and SF-36 physical functioning (-0.64) and general health (-0.55) domains (both p<0.0001). Age and 6MWD were predictors of MLHFQ score (table). Controlling for EDD/NYHA, MR severity or need for MVR did not impact QoL. Each 100m increase in 6MWD and 10-y increase in age were associated with 9.5 and 7.4 point improvements in MLHFQ score respectively. Conclusions: In the CorCap support device trial, age and 6MWD but not MR severity predict QoL on MLHFQ. Follow-up data will assess whether these factors remain predictive over time and after intervention.

Predictors of MLHFQ score by quartile

	<48 (best)	48-62	63-78	79+ (worst)	Adjusted p value
6MWD (m)	394	342	360	308	0.0002
LVEDD (mm)	68.1	72.7	68.0	70.7	0.46
LVEF (%)	23.0	22.4	22.9	22.4	0.34
Age (y)	57.9	53.0	51.8	47.1	<0.0001
Peak VO2	15.8	13.3	16.1	14.5	0.77
MR grade	2.6	2.2	2.2	2.5	0.28
Time since HF diagnosis (y)	6.1	5.1	5.2	3.4	0.11
Comorbidities(mean #)	1.3	1.8	1.9	1.2	0.05

1206-77 Heart Block After Alcohol Septal Ablation: Predictors and Consequences

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Background: Conduction defects after alcohol septal ablation for hypertrophic obstructive cardiomyopathy are common, with complete heart block (CHB) requiring permanent pacemaker (PPM) occurring in up to 33% of patients (pts).
Methods: 37 consecutive pts (23 female, age 58+/-16 yrs) underwent 39 ablation procedures between September 1998 and August 2002. Five pts with prior PPM and 1 pt who did not receive alcohol due to unfavorable septal anatomy were excluded from analysis.
Results: In the remaining 33 procedures, CHB occurred during ablation in 20 (61%). After ablation, 8 pts had new RBBB, 2 RBBB+LAFB, 3 RBBB+LPFB, and 2 LBBB. Nine pts (27%) developed CHB 32+/-15 hours after ablation, 3 of whom had asystole with no ventricular escape rhythm. Eight received PPM and 1, moribund on an LVAD before ablation, died after subsequent surgical myectomy. PPM was also placed in 1 pt with prior intermittent RBBB+LAFB who developed LBBB after ablation. All pts who received PPM had CHB during ablation and/or a new intraventricular conduction defect (IVCD) afterwards. PPM was ultimately required in 8 of 20 pts with CHB during ablation compared to 1 of 12 pts without (p=0.04). Of the 9 pts who received PPM, 7 had a new IVCD after ablation; the other 2 had preexisting IVCD. The 2 pts who underwent repeat ablation both received PPM. Between pts who did and did not receive PPM, there was no significant difference in volume of alcohol used (2.4 vs 3.0 ml), acute reduction in left ventricular outflow tract (LVOT) gradient (45 vs 57 mmHg), or peak CK (1550 vs 1403 U). Three-month follow-up available for 28 pts showed no significant difference in NYHA class improvement (2.9 to 1.9 vs 2.9 to 1.7) or proportion with 50% LVOT gradient reduction (75% vs 55%).
Conclusions: 1) Pts without CHB during ablation or new IVCD after ablation are at low risk for later CHB requiring PPM. 2) The risk of CHB requiring PPM may be especially high with repeat ablation. 3) Occurrence of CHB requiring PPM does not correlate with infarct size or acute or 3-month ablation success. 4) Some pts with CHB have no escape rhythm; in pts with CHB during ablation or new IVCD afterwards, temporary pacing should be provided for at least 48 hours after ablation.

1206-78 Right Ventricular Recovery Post-Lung Transplantation in Patients With Pretransplant Pulmonary Hypertension on Contemporary Medical Therapy

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Background: Improved medical management of patients with non-cardiac pulmonary hypertension has lead to improved survival; however, development of long-standing severe right ventricular dysfuncion is more commonly seen.
Objectives: To evaluate echocardiographic paramenters of right ventricular recovery after lung transplantation in pre-transplant pulmonary hypertension patients on contemporary medical therapy.
Methods: We evaluated patients undergoing lung transplantation at our institution. Diagnosis pre-transplant included idiopathic pulmonary fibrosis, COPD, primary pulmonary hypertension and others. Patients with evidence of pulmonary hypertension on echocardiography or right heart catheterization were selected. Echocardiographic paramenters were evaluated pre and post lung transplantation to determine evidence of right ventricular recovery.
Results: Thirty patients underwent lung transplantation between 1996 and 2001; of those 16 (53%) had evidence of pulmonary hypertension. The mean age was 43 SD11 years and 50% were of female gender. Echocardiographic paramenters pre and post lung transplantation are shown below.
Conclusions: Severe pulmonary hypertension with right ventricular dysfunction remains common in patients referred for lung transplantation. Negative right ventricular remodeling with normalization of right ventricular echocardiographic paramentes still occurs despite prolongued survival on contemporary medical therapy.

Variable	Pre-lung TX	Post-lung TX	p Value
RV wall thickness (mm)	7.75 SE 0.73	6.12 SE 0.74	0.04
RV wall diameter (mm)	35.5 SE 3.34	22.54 SE 1.73	0.01
RA diameter (mm)	41 SE 4.91	34.3 SE 0.6	0.23
RV systolic pressure (mm Hg)	77.22 SE 14	36 SE 3.58	0.02
LV ejection fraction (%)	58 SE 3.1	62 SE 1.3	0.22
TR Grade	2.56 SE 0.5	1.55 SE 0.34	0.07

1206-79 Methamphetamine Abuse Is Associated With Left Ventricular Dysfunction

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Background: 8.8 million Americans including 4.4% of high school students have tried methamphetamine (meth) at least once in their lifetimes. Anecdotal reports of cardiomyopathies in meth abusers have been reported. We sought to determine the incidence of left ventricular (LV) dysfunction in patients with documented meth use.
Methods: We performed a query of the toxicology database of the UCSD Medical Center for all patients with positive screens for meth from November 1999 to June 2002. We identified all patients who also had a transthoracic echocardiogram (TTE) within one year of testing positive. Age matched non-amphetamine positive patients were used as controls.
Findings: A total of 843 toxicology screens tested positive for meth. Of these, 76 had a TTE and comprise the study population. The average age was 43 ± 9. 49/76 (64%) patients had normal LV function, 6/76 (8%) mild, 8/76 (11%) moderate, and 13/76 (17%) severe LV dysfunction. The corresponding numbers for 1295 age-matched patients was 85% normal, 8% mild, 4% moderate and 4% severe LV dysfunction (p<0.001 vs. meth users). On multi-variate analysis, concomitant HIV disease as well as the presence of additional illicit drugs or alcohol were not predictive of LV dysfunction. **Conclusion:** In this group of methamphetamine users we identified a significantly increased incidence of LV dysfunction, with 28% having moderate to severe dysfunction. Further community-based studies of the cardiac effects of methamphetamine abuse appear warranted.

Left Ventricular Function in Methamphetamine Abusers and Controls

	Mean Age	N	Normal	Mild	Moderate	Severe
Meth Positive	43+/-9	76	49 (64%)	6 (8%)	8(11%)	13(17%)
Meth Only	44+/-8	18	10(56%)	0	3(17%)	5(28%)
Meth & Cocaine	46+/-11	13	10 (77%)	0	3(23%)	0
Controls	44+/-4	1295	1097(85%)	100(8%)	46(4%)	52(4%)